RATIOS & PRO-PORTIONS

WELCOME ALL

SHABANA

TOPICS

- BRIDGING COMPONENTS
- ACTUALS & ASSUMPTIONS
- PARTNERSHIP
- ALLIGATIONS

BRIDGE THREE COMPONENTS

Given		Find Out
A:B = 4:5	B:C = 6:7	A:C =
A:B = 6:7	B:C = 8:9	A:B:C =
BC:AC:AB = 1:2:3		A:B:C =
1/A : 1/B : 1/C = 2:3:5		A:B:C =

BRIDGE FOUR COMPONENTS

- Given: A: B = 2:5, B: C = 3:1, C: D = 3:5; Find A: B: C: D
- Find B's share in Rs. 6300 if A:B = 2:3, B:C = 4:5, C:D = 3:7
- Find A:D if A:B = 2:5, B:C = 4:3, C:D = 1:7

PRACTICE PROBLEMS

- Two number are in the ratio 3 : 5. If 9 is subtracted from each, the new numbers are in the ratio 12 : 23. The smaller number is:

  a. 27 b. 30 c. 33 d. 36

PRACTICE PROBLEMS

- Seats for Mathematics, Physics and Biology in a school are in the ratio 5 : 7 : 8. There is a proposal to increase these seats by 40%, 50% and 75% respectively. What will be the ratio of increased seats?

  a. 1:2:3 b. 2:3:4 c. 3:4:5 d. 4:5:6

PRACTICE PROBLEMS

- The ratio of the monthly incomes of A and B is 3:4. The ratio of their monthly expenditures is 4:5. Find the ratio of their monthly savings, if the savings of A is 1/4th of his income.

  a. 13:16 b.15:13 c. 12:19 d. 12:13

PRACTICE PROBLEMS

- If Rs. 782 be divided into three parts, proportional to $\frac{1}{2} : \frac{2}{3} : \frac{3}{4}$, ıe first part is:

  a. 182 b. 190 c. 196 d. 204

PRACTICE PROBLEMS

- Three friends Alice, Bob and Charlie divide $1105 amongst them in such a way that if $10, $ 20 and $15 are removed from the sums that Alice, Bob and Charlie received respectively, then the share of the sums that they got will be in the ratio of 11:18:24.

  How much did Charlie receive?

  a. $ 495 b. $ 510 c. $ 480 d. $375

PRACTICE PROBLEMS

- The ratio of incomes of A and B and also those of B and C are in the ratio of 2: 3. A third of C's income exceeds half of A's income by Rs.80. If each of them spend the same amount of money, then their savings are in the ratio of 1: 9: 21. What is their combined expenditure?

  a. Rs.300 b. Rs.280 c. Rs.450 d. Rs.900

PRACTICE PROBLEMS

- In a bag, there are coins of 25 p, 10 p and 5 p in the ratio of 1 : 2 : 3. If there is Rs. 30 in all, how many 5 p coins are there?

  a. 50 b. 100 c. 150 d. 200

ALLIGATION RULE

PRACTICE PROBLEMS

- Find the ratio in which rice at Rs. 7.20 a kg be mixed with rice at Rs. 5.70 a kg to produce a mixture worth Rs. 6.30 a kg.

  a. 1:2 b. 2:3 c. 1:6 d. 7:3

PRACTICE PROBLEMS

- Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 153 per kg, the price of the third variety per kg will be:

  a. 170.25 b. 171.50 c. 175 d. NOTA

PRACTICE PROBLEMS

- In what ratio must water be mixed with milk costing Rs. 12/ litre to obtain a mixture worth of Rs. 8/ litre?

  a. 1:2 b. 2:3 c. 1:6 d. 7:3

PRACTICE PROBLEMS

- The average salary of all the employees of a company is Rs. 12000. While average salary of a Unionized staff is Rs. 8000 and that of the management staff is Rs. 13000. What is the ratio of the number of unionized staff to the number of management staff?

  a. 2:4 b. 4:1 c. 3:1 d. 1:4

PRACTICE PROBLEMS

- In what ratio must water be mixed with milk to gain $16\frac{2}{3}$ % on selling the mixture at cost price?

  a. 1:2 b. 2:3 c. 1:6 d. 7:3

PRACTICE PROBLEMS

- In what ratio must a grocer mix two varieties of tea worth Rs. 60 a kg and Rs. 65 a kg so that by selling the mixture at Rs. 68.20 a kg he may gain 10%?

  a. 5:4 b. 4:3 c. 3:2 d. NOTA

PRACTICE PROBLEMS

- How much salt(in kg) worth 42 P / kg must one mix with25 kg of salt worth 24 P / kg so that he may, on selling the mixture at 40 P / kg, gain 25% on the outlay.

  a. 18 b. 20 c. 22 d. 24

PRACTICE PROBLEMS

- A merchant has 1000 kg of sugar, part of which he sells at 8% profit and the rest at 18% profit. He gains 14% on the whole. The quantity sold at 18% profit is:

  a. 600 b. 575 c. 550 d. NOTA